

CLAIM SET AS AMENDED

1. (Currently Amended) A method of assisting in the design of a vehicular suspension to generate a simulation model for a suspension using a CAD system, comprising the steps of:

indicating a suspension to be designed;

opening a specification value entering window for entering specification values ~~inherent in~~ corresponding to the indicated suspension;

entering specification values at definition points ~~inherent in~~ corresponding to the indicated suspension in said specification value entering window; and

generating a simulation model based on the specification values at the definition points.

2. (Original) The method of assisting in the design of a vehicular suspension according to claim 1, further comprising the steps of:

opening a first analytic window for displaying a first analytic model of the selected suspension and definition points thereof;

opening a second analytic window for displaying a second analytic model of the selected suspension and definition points thereof; and

entering specification values on at least one of said first analytic model and said second analytic model.

3. (Currently Amended) The method of assisting in the design of a vehicular suspension according to claim 1, further comprising the step of reflecting the entered definition points in the other windows when the definition points are entered in ~~either~~ any one of said specification value entering window, said first analytic window, and said second analytic window.

4. (Currently Amended) The method of assisting in the design of a vehicular suspension according to claim 2, further comprising the step of reflecting the entered definition points in the other windows when the definition points are entered in ~~either~~ any one of said specification value entering window, said first analytic window, and said second analytic window.

5. (Currently Amended) The method of assisting in the design of a vehicular suspension according to claim 1, wherein the step of indicating further comprises the step of indicating ~~the~~ a drive system of a vehicle to which the suspension is applied.

6. (Currently Amended) The method of assisting in the design of a vehicular suspension according to claim 5, wherein said step of opening said specification value entering window further comprises the steps of:

entering three-dimensional coordinates as specification values at predetermined definition points of a three-dimensional model; and

entering the lengths and angles of mechanisms of the ~~selected~~ indicated suspension as specification values.

7. (Currently Amended) The method of assisting in the design of a vehicular suspension according to claim 2, wherein said step of opening the first analytic window for displaying the first analytic model further comprises the ~~steps~~ step of:

~~opening an interference analytic model; and~~

analyzing whether there is an interference between various parts of the ~~selected~~ indicated suspension, the first analytic model being an interference analytic model.

8. (Currently Amended) The method of assisting in the design of a vehicular suspension according to claim 7, wherein said step of opening the second analytic window for displaying the second analytic model further comprises the ~~steps~~ step of:

~~opening a dynamic characteristic analytic model; and~~

displaying compression and expansion strokes of front and rear wheels of a vehicle, and strokes of the front and rear wheels when the vehicle is occupied by passengers and not occupied by passengers, the second analytic model being a dynamic characteristic model.

9. (Currently Amended) An apparatus for assisting in the design of a vehicular suspension to generate a simulation model for a suspension using a CAD system, comprising:

means for indicating a suspension to be designed;

means for opening a specification value entering window for entering specification values ~~inherent in~~ corresponding to the indicated suspension;

means for entering specification values at definition points ~~inherent in~~ corresponding to the indicated suspension in said specification value entering window; and

means for generating a simulation model based on the specification values at the definition points.

10. (Original) The apparatus for assisting in the design of a vehicular suspension according to claim 9, further comprising:

means for opening a first analytic window for displaying a first analytic model of the selected suspension and definition points thereof;

means for opening a second analytic window for displaying a second analytic model of the selected suspension and definition points thereof; and

means for entering specification values on at least one of said first analytic model and said second analytic model.

11. (Currently Amended) The apparatus for assisting in the design of a vehicular suspension according to claim 9, further comprising means for reflecting the entered definition points in the other windows when the definition points are entered in ~~either~~ any one of said specification value entering window, said first analytic window, and said second analytic window.

12. (Currently Amended) The apparatus for assisting in the design of a vehicular suspension according to claim 10, further comprising means for reflecting the entered definition points in the other windows when the definition points are entered in ~~either~~ any one of said specification value entering window, said first analytic window, and said second analytic window.

13. (Currently Amended) The apparatus for assisting in the design of a vehicular suspension according to claim 9, wherein said means for indicating further comprises means for indicating ~~the~~ a drive system of a vehicle to which the suspension is applied.

14. (Currently Amended) The apparatus for assisting in the design of a vehicular suspension according to claim 13, wherein said means for opening said specification value entering window further comprises:

means for entering three-dimensional coordinates as specification values at predetermined definition points of a three-dimensional model; and

means for entering ~~the~~ lengths and angles of mechanisms of the ~~selected~~ indicated suspension as specification values.

15. (Currently Amended) The apparatus for assisting in the design of a vehicular suspension according to claim 10, wherein said means for opening the first analytic window for displaying the first analytic model further comprises:

~~means for opening an interference analytic model; and~~

means for analyzing whether there is an interference between various parts of the ~~selected~~ indicated suspension, the first analytic model being an interference analytic model.

16. (Currently Amended) The apparatus for assisting in the design of a vehicular suspension according to ~~claim 5~~ claim 15, wherein said means for opening the second analytic window for displaying the second analytic model further comprises:

~~means for opening a dynamic characteristic analytic model; and~~

means for displaying compression and expansion strokes of front and rear wheels of a vehicle, and strokes of the front and rear wheels when the vehicle is occupied by passengers and not occupied by passengers, the second analytic model being a dynamic characteristic analytic model.

17. (New) The method for assisting in the design of a vehicular suspension according to claim 1, further comprising the step of:

highlighting specification values corresponding to the indicated suspension, and disabling entry of specification values not corresponding to the indicated suspension.

18. (New) The method for assisting in the design of a vehicular suspension according to claim 2, further comprising the steps of:

confirming positions of the definition points in the first analytic window and the second analytic window, if an entry from the specification value entering window is selected; and displaying the first analytic window and the second analytic window together with the specification value entering window in a same displayed view.

19. (New) The apparatus for assisting in the design of a vehicular suspension according to claim 9, further comprising:

means for highlighting specification values corresponding to the indicated suspension, and disabling entry of specification values not corresponding to the indicated suspension.

20. (New) The apparatus for assisting in the design of a vehicular suspension according to claim 10, wherein if an entry from the specification value entering window is selected, then an operator confirms positions of the definition points in the first analytic window and the second analytic window, the first analytic window and the second analytic

Application No. 09/820,230
Amendment dated November 17, 2004
Reply to Office Action of June 21, 2004

Docket No. 0505-0759P
Art Unit: 2128
Page 10 of 18

window being displayed together with the specification value entering window in a same displayed view.